

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

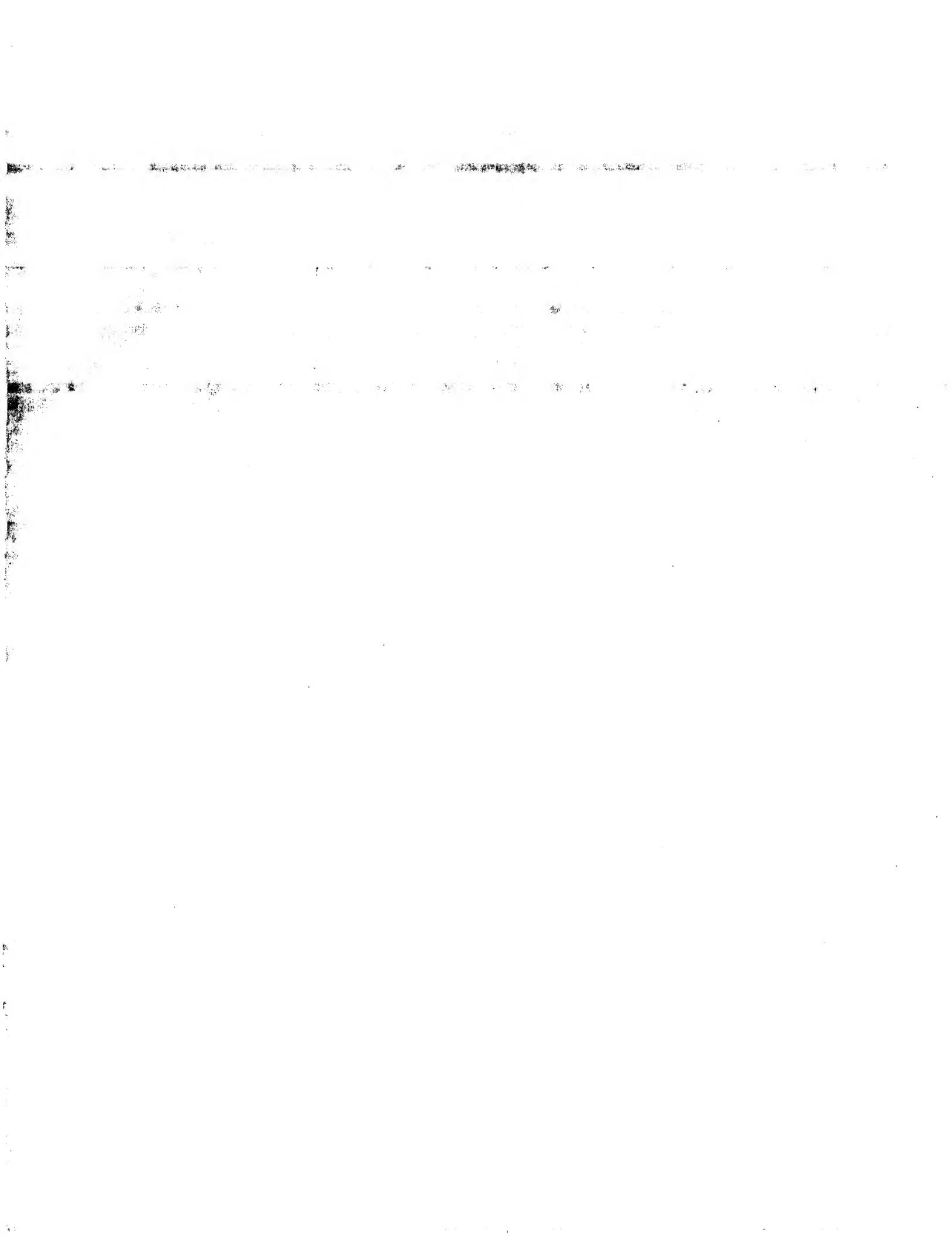
Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**



43
131

1954

FIG.1.

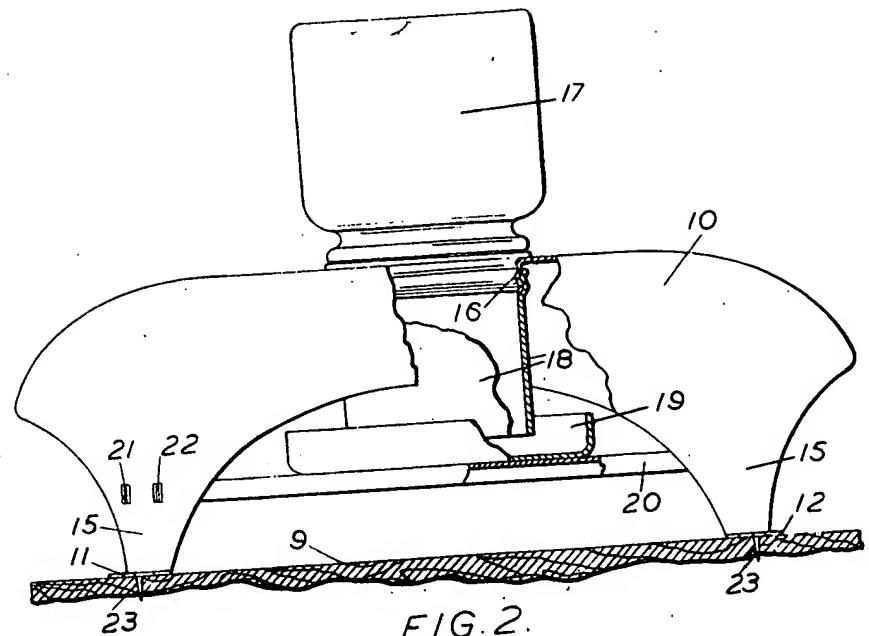
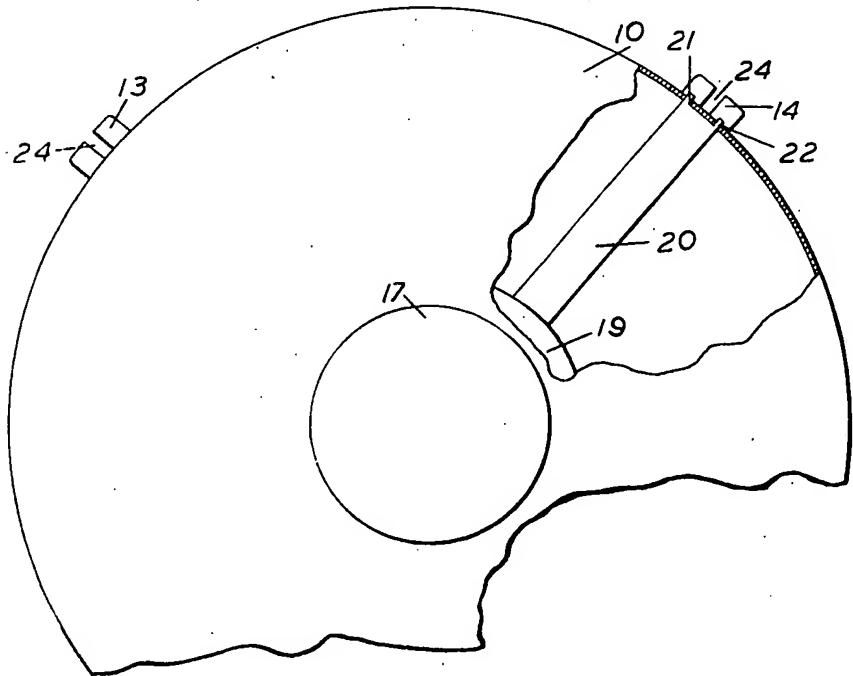


FIG. 2.



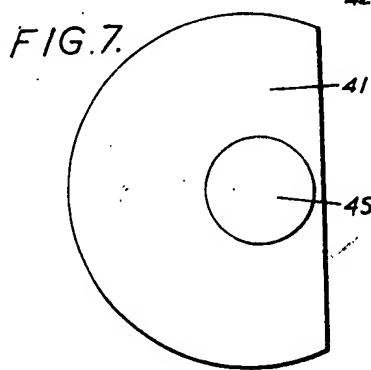
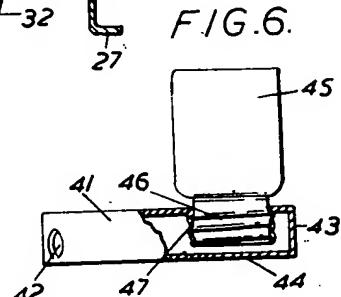
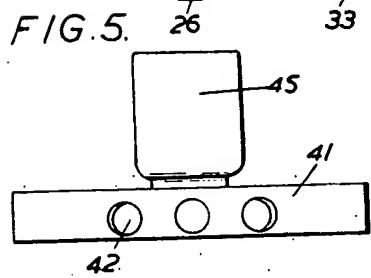
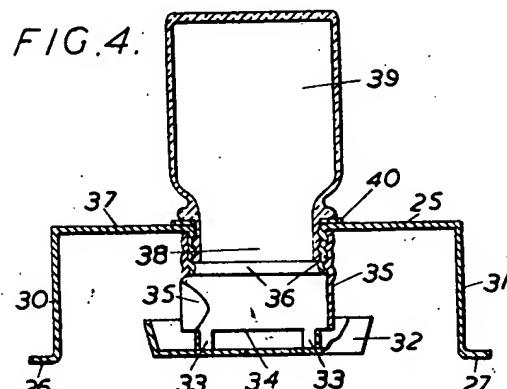
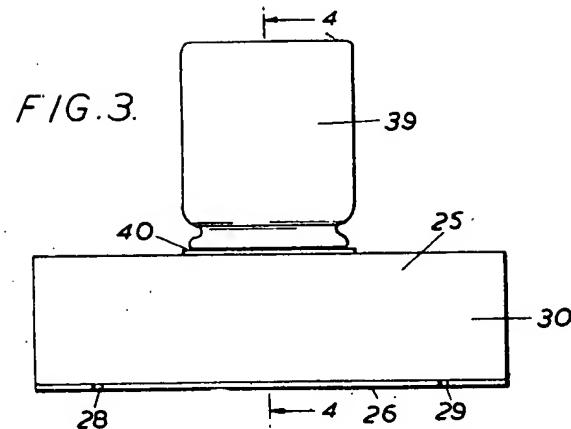
This Page Blank (uspto)

708,226 COMPLETE SPECIFICATION

2 SHEETS

This drawing is a reproduction of
the Original on a reduced scale.

SHEETS 1 & 2



This Page Blank (uspto)

PATENT SPECIFICATION

708,226



Date of Application and filing Complete

Specification : Sept. 22, 1952.

No. 23722/52

Complete Specification Published : April 28, 1954

EXAMINER'S COPY

DIV. 2

Index at acceptance:—**Classes 5(1), A1A; and 5(2), 11.**

COMPLETE SPECIFICATION

Rodenticide Dispenser

I, THOMAS WESTMORELAND MULLEN, of P.O. Box 1, Station B, Evansville 12, State of Indiana, United States of America, a Citizen of the United States of America, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

10 This invention relates to a device for dispensing a bait in a granulated or meal form for the purpose of exterminating rodents such as rats or mice. The dispenser is particularly intended to be used for the com-
 15 pound, the chemical base of which is coumarin. The chemical formula is given as being 3-(a-acetonylbenzyl)-4-hydroxy-coumarin. This is the preparation which was developed by the Wisconsin Alumni
 20 Research Foundation, and which is being currently sold under the Registered Trade Mark of Warfarin.

The secret of the success of this material lies in the fact that it is mixed generally
 25 in freshly ground corn meal and when rats or mice eat it, they do not die for several days, and in fact one particular eating of the preparation will not effect a kill. One dose is not sufficient. The material has to
 30 be eaten on many days to doom any animal. However, it is highly desirable that the bait or material of this nature be fully protected against accidental consumption by animals such as dogs, cats, or pigs and the like
 35 around the farm, for instance, at least beyond one dose.

The primary object of the invention herein shown and described is to provide a dispenser of that construction which will permit
 40 rats and mice to have access to the material but which will not afford access to chickens, cats, dogs and the like, at least to any degree which will injure the animal which might accidentally gain access to what available
 45 material is presented by the dispenser at any one time.

As is well known by this time, this
 [Price 2/8]

coumarin material is not a poison in the sense of red squill, arsenic, strychnine, and the like, which poisons have heretofore commonly been used. The coumarin material is of that nature which prevents the clotting of blood within the body of the animal, and in fact will promote internal hemorrhages so that the animals will die slowly over a period of days. Normally one big dose of the material is ineffective, but little doses fed from day to day, such as five days in a row, is most effective. It is to prevent this continuous feeding of the material to animals not desired to be affected which is the purpose of the present invention.

A further important object of the invention is to provide an exceedingly simple structure which may be operated by any inexperienced person, and at the same time will maintain a supply of the material in a fresh condition, that is unexposed to the air as to the major part of the material so that it will feed to the actual dispensing tray in a fresh, non-rancid or moldy condition.

Further, the invention provides a structure which is exceedingly simple and most convenient in operation and which is also quite durable and most effective for the purpose.

The invention is described in reference to the accompanying drawings, in which:—

Fig. 1 is a view in side elevation and partial section of a structure embodying the invention;

Fig. 2 is a fragmentary top plan view;

Fig. 3 is a view in side elevation of a modified form of the invention;

Fig. 4 is a view in vertical transverse section on the line 4—4 in Fig. 3;

Fig. 5 is a view in front elevation of a still further modified form of the invention;

Fig. 6 is a view in side elevation and partial section of the structure shown in Fig. 90 5; and

Fig. 7 is a view in top plan of that structure shown in Fig. 5.

A body 10, Fig. 1, is formed to have a

number of supporting feet, herein shown as four in number and designated by the numerals 11, 12, 13 and 14. These feet in each instance are outturned from the lower ends of legs 15. Between the legs 15, there are openings through which rats or mice may enter under the body 10.

The body is provided with an upper down-turned screw-threaded thimble 16 into which 10 is screw-threaded a can or jar 17 in an inverted manner. A cylindrical sleeve 18 screw-threadedly engages externally around the thimble 16.

Supported in any suitable manner is a bait 15 pan 19 into which the lower end of the cylindrical sleeve 18 projects, but is spaced by its lower end from the floor of that pan, as indicated in Fig. 1.

In the present instance, the pan 19 is supported upon an inverted channel 20 which is diagonally disposed across and under the body 10. The channel 20 has fingers 21 and 22 extending through the body 10, herein shown as through the leg 15, on each side. 25 The pan 19 is rigidly secured to the channel bar 20 by any suitable means such as by spot welding, and the pan 19 may be removed by springing the opposite legs 15 apart one from the other so that the fingers 20 21, 22 in each instance may be dropped out of engagement therewith. The body 10 is preferably made out of sheet metal which is naturally spring-like in nature within the limits required to engage and disengage the 35 short lengths of the fingers 21 and 22.

With the pan 19 removed, the body 10 is turned upside down, and the bait material is poured through the sleeve 18 into the jar 17 to fill it to the desired content, and while 40 still inverted, the bar 20 with its pan 19 is placed in position by pulling apart the opposite legs 15 to permit the channel bar 20 to be sprung therebetween with the fingers 21, 22 entered through the openings provided, 45 whereupon the legs will spring back into their normal positions to retain the bar 20 and thus support the pan 19 under the sleeve 18 when the body 10 is turned over into its upright position as indicated in Fig. 1. The 50 material will feed down through the sleeve 18 and spread out somewhat in the pan 19. There is sufficient clearance between the top edge of the pan 19 and the underside of the body 10 to permit rats and mice to have 55 access to the material presented in the pan around the outside of the sleeve 18. Mice may get up and perch on the bar 20 which they like to do, and thus are induced to find the material in the pan 19. There is sufficient clearance also for rats to enter between the legs 15, and reach over into the pan 19.

The diameter of the bait pan 19 and the overall diameter of the body 10 are made to be such that the pan 19 is not visible from 60 the outside of the body 10 within the normal

range of eyesight of a chicken or of a dog or of a cat. In any event, the material within the pan 19 is always concealed from view even though the eyesight level may be carried down below the openings between the 70 legs 15 of the body 10.

Should an inquisitive animal such as a dog be sniffing around the dispenser and overturn the body 10, the body will tend to rock to that position where the lower end 75 of the jar 17 will rest on the floor or the ground, so that the only material which will be spilled out will be that which is in the pan 19, and the other material will drop backwardly through the sleeve 18 toward the 80 jar 17. The amount of material which is spilled in that manner from the pan 19 will not be sufficient to produce any injury in a dog or a cat, in at least it will afford only one dose, and as above indicated, one dose 85 is not sufficient to cause any damage.

A very simple but most effective dispenser is shown in the form illustrated in Figs. 3 and 4 wherein there is a simple inverted trough-like housing 25 having the outturned 90 lower flanges 26 and 27 to form feet for attachment if desired to the floor. In this connection, the flanges 26 and 27 may be slotted as at 28 and 29, Fig. 3, so that the legs 30 and 31 may be sprung inwardly one 95 toward the other to permit the flanges 26 and 27 to engage about a nail or other means of fastening which remains in the floor, the legs being allowed to spring outwardly when the dispenser is in the desired position, and 100 then when the dispenser is to be refilled, these legs 30 and 31 may be pressed one toward the other to permit disengagement.

In this regard, reference is again made to Figs. 1 and 2 wherein this idea is also illustrated in that each of the feet 11—14 are slotted as at 24 and a nail 23 is driven into the floor 9 to prevent displacement of the foot in each instance. Then when the device is to be refilled, the legs 15 have enough 110 spring below the bar 20 to permit disengagement of the feet from the nails 23.

Referring again to that structure shown in Figs. 3 and 4, the bait pan 32 is secured by legs or posts 33 in spaced relation from the 115 underedge 34 from the sleeve 35 which in turn is screw-threaded around the outside of the thimble 36. This thimble 36 is down-turned from the upper side 37 of the housing 25, being screw-threaded to receive the 120 sleeve externally, and also to receive the neck 38 screw-threadedly inside thereof, of the jar or bottle 39. For a good tight connection, it is preferred that a rubber gasket 40 be used between the jar 39 and the top 125 37 when the jar is screwed into position by its neck 38 inside of the thimble 36. The housing 25 is open at both ends so that the rodents have free access, and may run entirely through the housing from end to 130

end.

In using the form shown in Figs. 3 and 4, the housing 25 is turned upside down with the bottle or jar 39 right side up, and then 5 the sleeve 35 is unscrewed, the pan 32 being turned therewith so that access is had directly to the mouth or neck 38 of the jar 39 for filling. In this case, the pan 32 is substantially at the plane across the under- 10 sides of the flanges 26 and 27.

It is to be seen that in this form in Figs. 3 and 4, any accidental upsetting of the structure will cause the small amount of bait material in the pan 32 to spill out inside of 15 the housing 25 since the tendency would be for the jar 39 to tilt laterally with the housing rather than from end to end. In any event, the material in the major portion will fall back into the jar 39, and only a very small 20 portion in the bottom of the pan 32 will spill out.

A further form of the invention particularly adapted for dispensing the material to mice is that shown in Figs. 5—7. In this 25 form, there is a halfmoon-shaped housing 41 closed on top and bottom sides entirely therearound, with a number of openings 42, herein shown as three in number on the extreme outer rounded portion of the hous- 30 ing. A flat wall 43 extends across the back-side of the housing 41, and there is a floor 44 completing the housing from the under- side. A jar 45 is screw-threaded by its mouth end 46 into an inturned thimble 47. 35 The filling of the jar 45 is had by unscrewing the jar from the housing 41, whereupon the material is placed in the jar, the jar main- tained in an upright position, and the housing 41 screw-threadedly engages with the mouth 40 end 46, whereupon the dispenser is ready for use by inverting the jar 45 to allow the content of the jar to fall downwardly on to the floor 44 and spread out thereon to a limited degree. It is to be noted that by 45 reason of the jar 45 being located adjacent the flat or straight wall 43, any tendency of the jar 45 to be upset will normally cause the housing 41 to turn over and rest on its flat wall 43 so that all of the material within 50 the housing 41 will tend to fall to that side rather than spill out through the openings 42.

Thus it is to be seen that all of the forms 55 of the invention have in common that struc- tural feature of preventing any excessive amount of the bait material from becoming exposed unwarrantably even though the dis- penser be upset. In each of the forms, the material is held in a vessel to prevent all of 60 the material from being exposed at one time to the atmosphere which would produce deterioration.

Therefore while these forms have been described in minute detail, it is obvious that 65 structural changes may be embodied in the

invention without departing from the spirit thereof, and I therefore do not desire to be limited to such forms beyond the limitations which may be imposed by the following claims.

What I claim is:—

1. A dry, meal-like rodenticide dispenser, including a housing having an opening in its top wall in which is secured a rodenticide supply vessel with its opening facing down- 75 wardly and in such a manner that the open- ing of the vessel terminates short of the bot- tom of a pan in the housing or the bottom of the housing, and means in the wall of the housing for permitting rodents to have access 80 to the pan or the upper face of the bottom of the housing and to the rodenticide dis- charged thereon from said vessel.

2. A rodenticide dispenser as set forth in Claim 1, in which said housing comprises 85 a top wall and downwardly extending side walls terminating into supporting feet, said side walls extending downwardly a sufficient distance to conceal the pan which is sup- ported by said housing at a distance from the 90 floor.

3. A rodenticide dispenser as set forth in Claim 1 or 2, in which the top wall of the housing extends laterally a distance in relation to the height of the vessel above the top 95 wall so that the vessel upon tipping the dis- penser over may rest by its normal top edge upon the ground and have said top wall support the vessel in a position to have its opening positioned to arrest overflow of the 100 rodenticide from said pan.

4. A rodenticide dispenser as set forth in Claim 1 or 2, in which said vessel is pro- vided with a screw-threaded neck engaging a screw-threaded opening in the top wall 105 of said housing.

5. A rodenticide dispenser as set forth in Claim 4, in which the top wall of the housing is provided with an inwardly extending screw-threaded thimble supporting the lower 110 end of the neck of the vessel in spaced rela- tion from the bottom of the housing.

6. A rodenticide dispenser as set forth in Claim 5, in which said housing has a side wall provided with apertures of a size per- 115 mitting the entrance of rodents into the housing.

7. A rodenticide dispenser as set forth in Claim 4, including a cylindrical sleeve exten- 120 ding from the screw-threaded opening downwardly and terminating in spaced rela- tion from the bottom of the pan.

8. A rodenticide dispenser as set forth in Claim 7, including means for fixedly securing said pan to the lower end of said cylindrical 125 sleeve.

9. A rodenticide dispenser as set forth in Claim 4, including a bar extending hori- zontally within the housing and supporting said pan in fixed spaced relation from the 130

lower end of said cylindrical sleeve.

10. A rodenticide dispenser as set forth in Claim 9, in which both ends of said bar are releasably attached to the side walls or 5 legs of said housing.

11. A dry, meal-like rodenticide dispenser substantially as described and shown in

the accompanying drawings.

For the Applicant,
FRANK B. DEHN & COMPANY,
Chartered Patent Agents,
Kingsway House, 103, Kingsway,
London, W.C.2.

Printed for Her Majesty's Stationery Office by Wickes & Andrews, Ltd., E.C.4. 39/244.—1954.
Published at The Patent Office, 25, Southampton Buildings, London, W.C.2, from which copies
may be obtained.